

A. **Title:**

1. Application for Permit for Scientific Purposes under the Endangered Species Act of 1973. (e.g. for field surveys, genetics research, etc.)

B. **Species:** List all species and/or populations and/or Evolutionarily Significant Units (ESUs) for which you request take authority. Snake River spring/summer-run chinook and Snake River fall chinook salmon.

C. **Date of Permit Application:** February 11, 2005.

D. **Applicant Identity:** The applicant is the individual and/or agency responsible for ensuring compliance with permit conditions, and may represent a group of individuals actually performing the activities (e.g., employees, partners, agents, and/or contractors). Please include the following information about the permit applicant:

1. Applicant's name and position title; Glen Mendel, WDFW District Fish Biologist for SE WA
2. Institution or agency name; Washington Department of Fish and Wildlife
3. Mailing address; 529 West Main St. Dayton, WA 99328
4. Telephone and Fax number; and E-mail address. Phone: (509) 382-1005, Fax: (509) 382-1267, E-mail: mendegwm@dfw.wa.gov
5. If NMFS should be coordinating with a contact person different from the applicant, please also include the same information (1-4 above) for the principal contact.

E. **Information on Personnel, Cooperators, and Sponsors.** (If the same person or entity will hold several roles, you may state their address information once and refer back to it).

1. If the applicant will not be the sole person conducting the proposed activities, provide the names, phone numbers, and résumés for each Principal Investigator and Field Supervisor. A Principal Investigator is ultimately responsible for the project and compliance with the permit conditions. A Field Supervisor (who may also be the Principal Investigator) is anyone who supervises or carries out the activities in the field without supervision, and will also be responsible for compliance with the permit conditions.

### **Glen Mendel, Principal Investigator**

Education: BS Biology, BS Fish and Wildlife Mgmt., MS Wildlife Science – all from Univ. of Idaho

Experience: Has worked as a biologist for the Washington Dept. of Game, Wildlife, Fish, and now the Dept. of Fish and Wildlife since 1981. All but 2.5 years have involved monitoring or restoring fish habitat, or monitoring fish populations as a principal investigator and fish biologist in SE WA. I served for 2.5 yrs as a habitat biologist in SW WA doing environmental permit reviews and HPA permitting. I have served as the District Fish Management Biologist for SE WA for the WA Dept. of Fish and Wildlife since 1997.

### **Mark Schuck, Co-principal Investigator**

Education: B.S. Fishery Science. Colorado State University

Experience: Worked as a management and research biologist for WDFW since 1978. Managed or researched the fish resource in S.E. Washington since 1982, including evaluation of a major hatchery trout/steelhead mitigation program since its inception in 1982. Helped conduct an evaluation of instream habitat improvements in Asotin Creek and Tucannon River in 1989 as part of the mitigation program. Currently responsible for overseeing WDFW's evaluation of the LSRCP mitigation program designed to replace fish resources lost due to construction of the four Snake River power dams, and overseeing hatchery/wild fish interaction research in SE Washington as part of WDFW's Science Division.

### **Jeremy Trump, Field Supervisor**

Education: AA from Walla Walla Community College (1997), BS Fisheries Management from University of Idaho (2000)

Experience: Worked off and on as a technician for WDFW from 2000 to 2002, when hired as a fish biologist. I have been working in SE Washington since 2001 conducting electrofishing, snorkeling, and spawning surveys for steelhead, bull trout, and chinook salmon and compiling data into reports.

### **Kent Mayer, Field Supervisor (Asotin Project Biologist)**

Education: B.S. Forestry, M.S. Fisheries Science - Oregon State University.

Experience: M.S. research documented mature male spring chinook salmon parr spawning two years in a row. Worked for the Yakama tribe to enumerate juvenile

abundance and migration patterns in the Toppenish, Satus and Atahnam Creeks. Worked for the U.S. Geological Survey on the 3-dimensional movement of juveniles in the forebay of Lower Granite Dam on the Snake River. This work determined the effectiveness of the removable spillway weir (RSW) in passing migrating juvenile salmon over the dam. Currently responsible for assessing the population status of anadromous salmonids in the Asotin Creek subbasin.

**Mike Gembala, Field Supervisor**

Education: Post High School education at Walla Walla Community College.

Experience: Worked seasonally or full time as a technician for WDFW in SE Washington since 1999 conducting electrofishing, snorkeling, and spawning surveys for steelhead, bull trout, and chinook salmon, as well as summarizing data.

2. To the extent possible, provide a list of field personnel. Glen Mendel, Jeremy Trump, Michael Gembala, Chris Fulton, Mark Schuck, Kent Mayer, and unknown temporary staff.
3. Please identify the secured or proposed funding source(s) for the proposed activities, including names, addresses, and phone numbers of the sponsors, cooperating institutions, etc. WDFW, 600 Capitol Way N, Olympia, WA 98501, Bonneville Power Administration: Roy Beaty, COTR, 503-230-5213.
4. If the proposed activities will be conducted by a contractor, provide a statement that a qualified member of your staff (include name(s) and qualifications) will supervise or observe the taking. Include a copy of the proposed contract or a letter from the contractor indicating agreement to operate under any and all permit conditions, should a permit be granted.
5. Provide a description of the arrangements for the disposition of any tissue samples, dead specimens, or other remains, either in a museum or other institution, for the continued benefit to science. Include the list of researchers, laboratories, museums, and/or institutional collections that would receive these tissue samples or specimens. Please include name, address, contact, and phone number for each. Tissue samples taken on this project would either be retained at the WDFW District 3 office in Dayton, the Asotin Creek Project Office in Clarkston, WA, or sent to the WDFW Genetics Stock Identification Lab in Olympia, WA.
6. For transport and long-term holding of listed species, please provide the qualifications and experience of all staff responsible for care without supervision, including a written certification from a licensed veterinarian knowledgeable about the requested species (or similar species), or from a recognized expert on the

species (or similar species) that he/she has personally reviewed the criteria for transporting and maintaining the animal(s) and that in his/her opinion they are adequate to provide for the well-being of the animal. Include the name and phone number of this veterinarian, consulting expert, or equivalent who will be available during the proposed activities. There will be no long-term holding or transport of listed species.

F. **Project Description, Purpose, and Significance:** Please describe the purpose of your study or project. If available, please attach a copy of the formal project proposal or contract, including the contract number, to your application. You may reference the appropriate section of the proposal/contract in response to a particular question.

1. a. A justification of the objective(s): motivation, history, goals, etc., and how the wild populations of the species will benefit from the proposed activities; The purpose of proposed activities is to determine steelhead, bull trout, and spring chinook stock status (e.g., Distribution and relative abundance and genetic characterization) in mainstem areas and tributaries of the Grande Ronde and Snake River in Asotin, Garfield, Whitman, and Columbia Counties in Washington State. Rescue and salvage operations will be conducted as needed. Some of these streams have little or no data available about fish distribution or abundance. Collecting baseline data will improve planning and future management decisions.
- b. The Asotin Creek project will focus on monitoring the population status of summer steelhead, and spring and fall chinook salmon in Asotin Creek above George Creek. It also focuses on the productivity of the natural populations in the absence of directed hatchery influences (out-plants or supplementation).
2. A statement of whether the proposed project or program responds directly or indirectly to a recommendation or requirement of a Federal agency (Include citations if applicable); This project would meet Draft USFWS Recovery Plan (2004) recommendations for obtaining additional data for bull trout management in the Grande Ronde and Wenaha Rivers. The Asotin Creek project is funded as part of BPA's response to the 2000 FCRPS biological opinion requiring stock status monitoring within the Columbia basin.
3. A statement of whether the proposed project or program has broader significance than the individual project's goals, or is part of a larger scale research management or restoration plan (Include citations if applicable); Washington State Snake River Salmon Recovery planning and monitoring, and FCRPS stock status monitoring are directed actions to help managing agencies guide recovery efforts for listed populations.

4. A description of any relationships or similarities of the proposed activities to other proposed or ongoing projects and programs, and whether the potential exists to cooperate and coordinate with other similar studies or activities. (Include citations if applicable);

ODFW spring chinook monitoring in the mainstem Wenaha River and the USFS inventory activities in the Wenaha/Tucannon Wilderness. Asotin Creek population and trend data will be used by managers to relate habitat recovery efforts to changes in population status within the basin.

5. A justification for using listed species in the study or activities, and a discussion of possible alternatives to using listed species and/or to using the proposed methods. If applicable, you should try to anticipate alternative scenarios due to circumstances such as changes in environmental conditions, annual variations in species abundance, necessary changes in proposed procedures, etc. Such scenarios should be addressed in **Description and Estimates of Take** below if they affect the nature or amount of potential take of listed species. This planning may avoid the potentially lengthy process of modifying the permit.

Provide/collect data to help determine status of listed stocks of steelhead, spring chinook salmon, and bull trout. Population status monitoring in Asotin Creek is being used to provide direct estimates of population variation and changes resulting from actions implemented in the basin to recover listed populations. Trend and status data will serve as an indicator for other Snake Basins, where similar actions and takes would not be necessary if undertaken in Asotin Creek

G. **Project Methodology:** Please provide a detailed description of the project, or program, in which the listed species is to be used, including:

1. The proposed duration of the project or program, including start and end dates.  
Start Date: March 1, 2005, End Date: December 31, 2009

2. A discussion of the procedures and techniques which will be used during the project. The discussion should include, at a minimum:

- a. Method(s) of capture and of release; WDFW will conduct spawning surveys for bull trout and possibly for spring chinook and steelhead (coverage is provided under a 4(d) permit for steelhead sampling and coverage under a Section 6 agreement with the U.S. Fish and Wildlife Service for bull trout sampling). WDFW will electrofish, snorkel, or use hook and line to collect juvenile and resident fish to determine summer distribution and relative abundance for these species. WDFW will capture adult steelhead with dip nets, or sample chinook carcasses, during spawning surveys to take fin clips or opercle punches to obtain information about origin and to collect genetic and scale samples, and scan

for PIT tags or Coded Wire Tags (CWT). Juveniles may be sampled for scales and DNA analyses. Partial caudal or dorsal fin clips will be used for genetic samples. WDFW may collect some habitat measurements or conduct habitat inventory. Rescue and salvage activities occur almost every year in southeast Washington. If fish are going to die because of dewatering (natural or man-caused) salvage operations will be used to move fish to where they are likely to survive. If it is man-caused and it is associated with habitat improvement projects, then under separate NOAA consultation and WDFW would conduct the salvage portion, or it may be an annual salvage operation such as the dewatering of Mill Creek (Walla Walla Basin) that has occurred for many years - where NOAA is currently consulting on for the Corps of Engineers and WDFW assists by assisting with the salvage operation.

- b. A description of any tags, including the attachment method, location, and expected duration of tag attachment;

A combination of Floy anchor tags and PIT tagging of adult salmon captured in Asotin Creek will be used to monitor trap efficiency and progression of spawning in the basin. Only PIT tags will be used on juvenile salmon captured in the smolt trap. No tags will be attached in other basins, but sampling for PIT tags and sampling/recovery of Coded Wire Tags will be conducted.

- c. A description of type and dosage of any drugs to be used, purpose of use, and method of application; During fish sampling, some fish may be anesthetized with FINQUEL® (MS-222, tricaine methane sulfonate). This makes handling easier and safer for the fish. Once sampling is complete, fish will be held for a short period to allow them to recover from the anesthesia before being returned to the stream.

- d. Temporary holding time prior to release of the individual(s) and the manner in which they will be detained (for transport and long-term holding, please fill out the section on **Transport and Holding**); Once sampling is complete, fish will be held for a short period to allow them to recover from the anesthesia before being returned to the stream. Juvenile and adult salmon captured in the Asotin Creek traps may be held for up to 24 hours before being released. Adults will be retained in instream aluminum trap structures that are integral with a blocking (floating) weir that directs migrating fish into upstream and downstream trap boxes. The trap boxes are 4' x 6' rectangles with 12" to 24" of water flowing through. Juveniles are held in the live box of a standard 5' diameter screw trap being used to estimate outmigration. Juveniles are held briefly in 5 gal.

buckets to recover from the anesthesia before being released back into the stream (see below).

- e. Number and types of samples to be taken from each individual, including sampling protocol. During electrofishing surveys the following data will be collected; identification (genus and/or species), weight (g), length (mm), fin clips for DNA analysis (up to 10 fish per site in varying age classes), and scale samples (up to 15-20 per site). During spawning surveys dead chinook will be sampled to collect scales and tissues for DNA analysis, and checked for PIT tags and CWT's. Snouts will be taken on fish containing CWT's, extracted, and read at the WDFW office in Dayton. The remaining parts of the fish will be left to provide nutrients in the stream. Hook and line sampling will include: identification (genus and/or species), length (mm), fin clips for DNA analysis, scale samples, and if possible sampling for PIT tags and CWT's.

Smolt sampling on Asotin Creek follows a strict protocol: Juvenile salmonids captured in the smolt trap will be netted from the live well into a plastic container filled with creek water. The number of fish that may be placed in the tub is a function of size. For example, a group of small fish (<50), which are less than 115 millimeters (mm) in length, may be placed in a tub at any one time. Prior to all data collection procedures, fish will be anesthetized in water containing MS-222 (tricaine methane sulfonate) at a concentration of about 70 milligrams per liter. The number of fish placed in the anesthesia bath is limited by the time it would take to work them up, which should not exceed 10 minutes. The goal is to minimize the exposure time of the fish to the MS-222. If there are large numbers of fish to be sampled (>200), then the anesthesia bath will be changed periodically to minimize water temperature increase and maximize oxygen levels. After data collection, fish will be placed in recovery buckets filled with fresh creek water and allowed to fully recover prior to release.

For all salmonids captured in the smolt trap, the species will be recorded (steelhead trout, chinook salmon, or bull trout) and up to 30% of the fish will be measured for fork length. The degree of smoltification will also be noted (i.e., parr, transitional smolt, or smolt). Smolts and transitional smolts will have scale samples collected as described below. Fish that are to be tagged or have scales removed will also be weighed on a digital balance. Scale samples (3-10 scales from above the lateral line posterior to the dorsal fin from 10-15 fish per site) will be collected from a sub-sample (part of the 30% for length) of juveniles in order to estimate the age composition of emigrants.

Smolt trap efficiency testing will be done at least weekly when a minimum of 25 steelhead and 5 chinook salmon are captured on any day during the week. Trap efficiency, based on the proportion of fish

recaptured, will be estimated by clipping a small portion of the upper or lower lobe of the caudal fin, by squaring about 1/8-inch of the fin tip with a scissors, prior to release.

3. A discussion of the potential for injury or mortality to the species involved, and the steps that will be taken to minimize adverse effects and to ensure that the species will be taken in a humane manner. WDFW's sampling will follow NOAA's RPA's and WDFW's section 4(d) statements for research and monitoring permits from NOAA. Captured fish will be held as briefly as possible and will be kept in water most of the time. Electrofishing will be conducted following NOAA and WDFW guidelines (except without temperature restrictions in Southeast WA). WDFW's methods will be appropriate for waters and fish size sampled. Fish will be captured and handled for biological sampling in a manner that minimizes stress. Captured fish will be released near the point of capture. Fish will be monitored carefully and the activity will be terminated if high mortalities occur. WDFW will remain under the take allowed under this permit.

Tagging and fin clipping will be completed carefully as described above to minimize damage and stress to the fish.

- H. **Description and Estimates of Take:** Issued permits define a specific number of individuals of each species that can be taken within the approved study or project. You must provide sufficient detail (in the table or in narrative) for NMFS to determine the species, population group, and estimated number of individuals to be "taken" due to each activity. You should also describe the specific age, size, (and sex, if appropriate) of the listed species targeted. Please take into account alternative scenarios identified above in **Project Description, Purpose, and Significance.**

The description of the listed species to be taken during the proposed activities should include the following:

1. A list of each species and/or population and/or Evolutionarily Significant Unit to be taken including the common and scientific name. Include specific population or sub-population groups if appropriate.  
Snake River spring/summer-run chinook and Snake River fall chinook (*Oncorhynchus tshawytscha*).
2. The sampling schedule, including locations and dates if available. Be as specific as possible. Locations should be listed from general to most specific, including bodies of water, rivers, tributaries, streams or creeks, and a geographical descriptor (e.g., Columbia River, Snake River, Imnaha River, River Mile 42 or Gulf of Mexico, Louisiana Coast, Sabine Pass). Include latitude/longitude coordinates, if possible.

Snake River and any other tributaries in Asotin, Garfield and Columbia Counties; Grande Ronde River; Cougar Creek, Grouse Creek and other small Grande Ronde tributaries in Washington, including the Wenaha River and tributaries; Tucannon River and tributaries; Asotin Creek and tributaries; Alpowa Creek; Tenmile Creek; Couse Creek; Alkali Flat Creek; Almota Creek; Steptoe Creek; Penawawa Creek; Wawawai Creek. (Not all streams will be sampled each year, but they may be sampled during the five years authorized under this permit).

3. A description of the recent status and trends of each species and/or population and/or ESU to be taken, relative to the location(s) or area(s) of taking. (Include citations if available).

Information on these stocks can be found in the 2004 NOAA Stock Status Report (Fed. Register 69, No. 113, [www.nwr.noaa.gov](http://www.nwr.noaa.gov)). Information collected by this project will help determine stock status and should supplement data that is used to assess status and trends within these stocks.

Snake River spring/summer/fall chinook are listed as “threatened”.

4. A description and/or completed summary table (see attached table) of estimated take per annual period, for your activities at each discrete location and/or for each project. Please separate take information into “species profiles”– groups of individuals with the same characteristics that will be undergoing the same procedures (see b-h below). Make sure you do not double-count-- if you propose to capture 50 animals, and tag 5 of those, you should list 45 animals to be captured, and 5 to be captured & tagged. Each “species profile” should include:
  - a. Number of individuals;
  - b. Species and/or population and/or ESU;
  - c. Life stage (such as post-hatchling, fry, smolt, juvenile, immature, adult, etc. (note if live or dead))
  - d. Sex (if known);
  - e. Origin (if applicable, naturally-produced (wild) or artificially-propagated (hatchery));
  - f. Take activity category (such as observe/harass; capture and handle; etc.);
  - g. Location (if more specific than the project as a whole); and
  - h. Date(s) (if more specific than the project as a whole).
5. Estimates of potential annual mortalities by take category, including a justification. You should specify the life stage of the potential mortalities, sex if known, and whether naturally-produced (wild) or artificially-propagated (hatchery). Mortality estimates should be specific by population; by the activity causing the mortality; and/or by location when known. You should specify whether mortalities will be intentional (direct mortality) or unintentional (indirect mortality).

6. Provide details on how all take estimates, including mortalities, were derived. Include citations when applicable.

Take estimates were generally based on WDFW's experience sampling streams in South East Washington. However, WDFW has little or no information on which to base estimates for the Wenaha drainage. The lack of information is part of the reason for this project and permit application.

Estimates for Asotin Creek are based on information from the principal researchers and field supervisors, as well as smolt trapping conducted in 2004.

Anticipated Annual Take									
<b>Applicant:</b> Glen Mendel, WDFW District Fish Biologist					<b>Location/Project:</b> Snake River and Tributaries				
Number of individuals	Species and/or Population and/or ESU	Life Stage	Sex	Origin	Take Activity Category	Location	Date(s)	Details	
1000	Snake River Spring/Summer-run Chinook salmon	Juvenile		Natural	<b>Electrofishing-</b> Capture/handle, weigh, measure, sample tissue/scales, release	Grande Ronde and tributaries including the Wenaha basin	<u>Late June, July and Aug.</u>	<u>Max. of 5% mortality</u>	
200	Snake River Fall run Chinook Salmon	Juvenile		Natural	<b>Electrofishing-</b> Capture/handle, weigh, measure, sample tissue/scales, release	Grande Ronde and tributaries including the Wenaha basin	<u>Late June, July and Aug.</u>	<u>Max. of 5% mortality</u>	
250	Snake River Spring/Summer-run Chinook salmon	Adult		Natural	<b>Spawning Surveys-</b> Observe/sample Tissue on Dead Fish	Grande Ronde and tributaries including the Wenaha basin	<u>Late Aug, Sept, Oct</u>	<u>No mortality</u>	
50	Snake River Fall run Chinook Salmon	Adult		Natural	<b>Spawning Surveys-</b> Observe/sample Tissue on Dead Fish	Grande Ronde and tributaries including the Wenaha basin	<u>Oct, Nov, Dec</u>	<u>No mortality</u>	
300	Snake River Spring/Summer-run Chinook salmon	Juvenile		Natural	<b>Hook and Line-</b> Capture/handle, weigh, measure, sample tissue/scales, release	Grande Ronde and tributaries including the Wenaha basin	<u>July, Aug, Sep, Oct</u>	<u>Max. of 30 fish</u>	
1000	Snake River Spring/Summer-run Chinook salmon	Juvenile		Natural	<b>Electrofishing-</b> Capture/handle, weigh, measure, sample tissue/scales, release	Tucannon River and tributaries	<u>Late June, July, Aug, Sept</u>	<u>Max. of 5% mortality</u>	
200	Snake River Fall run Chinook Salmon	Juvenile		Natural	<b>Electrofishing-</b> Capture/handle, weigh, measure, sample tissue/scales, release	Tucannon River and tributaries	<u>Late June, July, Aug, Sept</u>	<u>Max. of 5% mortality</u>	

Anticipated Annual Take								
<b>Applicant:</b> Glen Mendel, WDFW District Fish Biologist					<b>Location/Project:</b> Snake River and Tributaries			
<b>Number of individuals</b>	<b>Species and/or Population and/or ESU</b>	<b>Life Stage</b>	<b>Sex</b>	<b>Origin</b>	<b>Take Activity Category</b>	<b>Location</b>	<b>Date(s)</b>	<b>Details</b>
250	Snake River Spring/Summer-run Chinook salmon	Adult		Natural	<b>Spawning Surveys-</b> Observe/sample Tissue on Dead Fish	Tucannon River and tributaries	<u>Late Aug, Sept, Oct</u>	<u>No mortalities</u>
25	Snake River Fall run Chinook Salmon	Adult		Natural	<b>Spawning Surveys-</b> Observe/sample Tissue on Dead Fish	Tucannon River and tributaries	<u>Oct, Nov, Dec</u>	<u>No mortalities</u>
250	Snake River Spring/Summer-run Chinook salmon	Juvenile		Natural	<b>Hook and Line-</b> Capture/handle, weigh, measure, sample tissue/scales, release	Tucannon River and tributaries	<u>Year round</u>	<u>Max. of 15 mortalities</u>
500	Snake River Spring/Summer-run Chinook salmon	Juvenile		Natural	<b>Electrofishing-</b> Capture/handle, weigh, measure, sample tissue/scales, release	Asotin Creek and tributaries	<u>Late June, July, Aug, Sept, Oct</u>	<u>Max. of 50 mortalities</u>
200	Snake River Fall run Chinook Salmon	Juvenile		Natural	<b>Electrofishing-</b> Capture/handle, weigh, measure, sample tissue/scales, release	Asotin Creek and tributaries	<u>Late June, July, Aug, Sept, Oct</u>	<u>Max of 20 mortalities</u>
50	Snake River Spring/Summer-run Chinook salmon	Adult		Natural	<b>Spawning Surveys-</b> Observe/sample tissue on dead fish	Asotin Creek and tributaries	<u>Late Aug, Sept, Oct</u>	<u>No mortalities</u>
25	Snake River Fall run Chinook Salmon	Adult		Natural	<b>Spawning Surveys-</b> Observe/sample tissue on dead fish	Asotin Creek and tributaries	<u>Oct, Nov, Dec</u>	<u>No mortalities</u>

Anticipated Annual Take								
<b>Applicant:</b> Glen Mendel, WDFW District Fish Biologist					<b>Location/Project:</b> Snake River and Tributaries			
Number of individuals	Species and/or Population and/or ESU	Life Stage	Sex	Origin	Take Activity Category	Location	Date(s)	Details
5000	Snake River Spring/Summer-run Chinook salmon	Juvenile		Natural	<b>Smolt Trapping</b> Capture/handle, weigh, measure, sample tissue/scales, fin clip, tag, release	Asotin Creek and tributaries	Feb. – June, and Sep.-Dec.	Indirect mortality is expected to be <3% <u>Asotin steelhead project</u>
50	Snake River Spring/Summer-run Chinook salmon	Adult		Natural	<b>Trap</b> Capture/handle, measure, sample tissue/scales, tag, release	Asotin Creek and tributaries	April-October	Indirect mortality is expected to be <5% <u>Asotin Steelhead project</u>
150	Snake River Spring/Summer-run Chinook salmon	Juvenile		Natural	<b>Hook and Line-</b> Capture/handle, weigh, measure, sample tissue/scales, release	Asotin Creek and tributaries	<u>Late June, July, Aug, Sep, Oct</u>	<u>Max. of 15 mortalities</u>
100	Snake River Spring/Summer-run Chinook salmon	Juvenile		Natural	<b>Electrofishing-</b> Capture/handle, weigh, measure, sample tissue/scales, release	Snake River and other small tributaries <sup>a</sup>	<u>Year round</u>	<u>Max. of 10 mortalities</u>
200	Snake River Fall run Chinook Salmon	Juvenile		Natural	<b>Electrofishing-</b> Capture/handle, weigh, measure, sample tissue/scales, release	Snake River and other small tributaries <sup>a</sup>	<u>Year round</u>	<u>Max of 20 mortalities</u>
50	Snake River Spring/Summer-run Chinook salmon	Adult		Natural	<b>Spawning Surveys-</b> Observe/sample tissue	Snake River and other small	<u>Aug thru Oct</u>	<u>No mortalities</u>

Anticipated Annual Take								
Applicant: Glen Mendel, WDFW District Fish Biologist					Location/Project: Snake River and Tributaries			
Number of individuals	Species and/or Population and/or ESU	Life Stage	Sex	Origin	Take Activity Category	Location	Date(s)	Details
					on dead fish	tributaries <sup>a</sup>		
15	Snake River Fall run Chinook Salmon	Adult		Natural	<b>Trap</b> Capture/handle, measure, sample tissue/scales, tag, release	Asotin Creek and tributaries	Sept.- Nov.	Indirect mortality is expected to be <5% <u>Asotin Project</u>
5000	Snake River Spring/Summer-run Chinook salmon	Juvenile		Natural	<b>Smolt Trapping</b> Capture/handle, weigh, measure, sample tissue/scales, fin clip, tag, release	Asotin Creek and tributaries	Feb. – June, and Sep. – Dec.	Indirect mortality is expected to be <3% <u>Asotin Project</u>
25	Snake River Fall run Chinook Salmon	Adult		Natural	<b>Spawning Surveys-</b> Observe/sample tissue on dead fish	Snake River and other small tributaries <sup>a</sup>	<u>Oct, Nov, Dec</u>	<u>No mortalities</u>
100	Snake River Spring/Summer-run Chinook salmon	Juvenile		Natural	<b>Hook and Line-</b> Capture/handle, weigh, measure, sample tissue/scales, release	Snake River and other small tributaries <sup>a</sup>	<u>Year round</u>	<u>Max of 10 mortalities</u>

<sup>a</sup> Tributaries include Couse Creek, Tenmile Creek, Alpowa Creek, Steptoe Creek, Wawawai Creek, Almota Creek, Penawawa Creek, Alkali Flat Creek, and any unlisted tributaries in Asotin, Garfield, and Columbia Counties.

## I. **Transportation and Holding**

1. **Transportation of a Listed Species:** Provide a description of how any live individuals taken from the capture site or other facility (including rescue and relocation activities) will be transported including: **N/A**
  - a. Mode of transportation and name of transportation company, if applicable. **N/A**
  - b. Length of time in transit for the transfer of the individual(s) from the capture site to the holding facility or to the target location. **N/A**
  - c. Length of time in transit for any planned future move/transfer of the individual(s). **N/A**
  - d. The qualifications of the common carrier or agent used for transportation of the individual(s). **N/A**
  - e. A description of the pen, tank, container, cage, cradle, or other devices used, both to hold the individual(s) at the capture site and during transportation. **N/A**
  - f. Special care before, during and after transportation (e.g., use of oxygen, temperature control, anesthetics, antibiotics, etc.) **N/A**
2. **Holding of a Listed Species:** Describe the plan for care and maintenance of any live individuals, including a complete description of the facilities where any such individuals will be maintained including: **N/A**
  - a. The dimensions of the pool(s) or other holding facilities and the number of individuals, by sex, age, and species, to be held in each. **N/A**
  - b. The water supply, amount, and quality, including controls on temperature and dissolved oxygen. **N/A**
  - c. The amount and type of diet used for all individuals, and food storage. **N/A**
  - d. Sanitation practices used. **N/A**
3. **Emergency contingencies:** Identify emergency contingencies- e.g., backup life support systems, alarm systems, redundant water and oxygen supply, release or destroy decision chains, etc. **Careful monitoring of captured fish, use of proper settings on equipment for capture. WDFW will keep the condition and health of**

listed fish as a priority and WDFW will abandon these activities if WDFW is unable to minimize adverse impacts on listed fish and remain within WDFW's take limits.

- J. Cooperative Breeding Program:** You must include a statement of willingness to participate in a cooperative breeding program and to maintain or contribute data to a breeding program, if such action is requested. WDFW cannot commit to this action without funding and further discussion.

**K. Previous or Concurrent Activities Involving Listed Species:**

1. Identify all previous permits where you were the permit holder or primary investigator working with federally-listed species. Please identify which species. Sec. 4(d) research, monitoring and evaluation permits, Snake River fall chinook Sec 7, Sec 10-Tucannon spring chinook, bull trout-Sec 6 coverage from USFWS
2. For the above permits, please list all mortality events of listed species which have occurred in the last five years.
  - a. List the species, including scientific name and population where applicable; Please see the take reports submitted to NOAA under the 4(d) applications, and bull trout data under Sec. 6 is on file with the USFWS.
  - b. Describe the number and causes of mortalities; Please see the take reports submitted to NOAA under the 4(d) applications, and bull trout data under the Sec. 6 is on file with the USFWS.
  - c. Describe the measures that have been taken to diminish or eliminate such mortalities, and the effectiveness of those measures. See WDFW's 2005 NOAA Sec. 4(d) permits for research, monitoring and evaluation.

- L. Certification:** You must include the following paragraph, exactly as worded, followed by the applicant or responsible party's name, position title, signature and date:

"I hereby certify that the foregoing information is complete, true and correct to the best of my knowledge and belief. I understand this information is submitted for the purpose of obtaining a permit under the Endangered Species Act of 1973 (ESA) and regulations promulgated thereunder, and that any false statement may subject me to the criminal penalties of 18 U.S.C. 1001, or to penalties under the ESA."

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Signature

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Date

Name and Position Title

- M. **Length of Time and Cost to Prepare Application (Optional):** The public burden of these application instructions is evaluated periodically by the Office of Management and Budget under the Paperwork Reduction Act. Your response will help improve the accuracy of the estimates given for evaluation. You may send comments regarding this estimate or any other aspect of this information collection, including suggestions for reducing this burden, to the Chief, Endangered Species Division, at the address under **"Where Do I Send the Application?"**

1. Please estimate the length of time, in hours, it took to compile this application.
2. Please estimate the cost, in \$US, of compiling this application, excluding the labor hours identified in 1. above. This estimate should include: cost of paper, printing, mailing, photocopying, etc.